18 December 1961

Mr. McCone:

FOR INFORMATION ONLY

This is the completed draft of a USIB assessment of Scientific and Technical Intelligence prepared by your Coordination Staff pursuant to Recommendation No. 15 of the 4 October Report by the President's Foreign Intelligence Advisory Board. The President directed that this assessment be submitted to Mr. McGeorge Bundy and the President's Board by 31 December.

Informal reactions are now being obtained from the other members of USIB. When responses have been received, it will be presented to you as Chairman of USIB prior to formal submission for USIB consideration.

| س | your remark this morning Dr. Killian, who is esp | to you at this time as I noted ag about an early meeting with ecially interested in this |
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Office of THE DIRECTOR OF CENTRAL INTELLIGENCE Washington 25, D. C.

15 December 1961

MEMORANDUM FOR: Chairman, United States Intelligence Board

SUBJECT:

Scientific and Technical Intelligence - General (Recommendation No. 15 of the October 4, 1961 Report to the President by the President's

Foreign Intelligence Advisory Board)

REFERENCE:

USIB-D-34.4/1 dated 30 October 1961

- 1. In accordance with the reference, the attached draft report containing an assessment and recommended actions on the problem of improving the collection, coordination and analysis of intelligence concerning the scientific and technical capabilities of the Soviet Bloc is submitted for consideration by the United States Intelligence Board (USIB).
- 2. As directed, the attached report has been prepared by the Coordination Staff of the Director of Central Intelligence in consultation with appropriate agencies and chairmen of USIB committees.
- 3. In preparing this report, the Coordination Staff has visited and held discussions with the Army Technical Intelligence Field Agency; the Navy's Scientific and Technical Intelligence Center; the Air Force Intelligence Center; the Directorate of Foreign Technology and the Foreign Technology Division, Air Force Systems Command; the Office of the Science Adviser and Office of the Special Assistant for Atomic Energy and Outer Space of the Department of State; the Defense Intelligence Agency; the National Security Agency; the Office of the General Counsel, Department of Defense; the Office of Scientific Intelligence, Office of Operations, Office of National Estimates, Office of the Deputy Director, Plans, and the National Photographic Interpretation Center, of the Central Intelligence Agency. In addition, the Coordination Staff has consulted numerous individuals in the intelligence community

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knowledgeable in this area of intelligence activity, including the Chairmen of the Committee on Overhead Reconnaissance, the Guided Missile and Astronautics Intelligence Committee, the Scientific Intelligence Committee, and the Joint Atomic Energy Intelligence Committee.

4. The Coordination Staff believes that the attached report constitutes an appropriate response to the recommendation of the President's Foreign Intelligence Advisory Board, as approved by the President, for an early and thorough assessment of the problem by USIB. In view, however, of the great importance of this problem to the national security and of the limited time available for preparing the attached report, it is considered that a more comprehensive examination of the scientific and technical intelligence activities of the intelligence community should be continued for the USIB under the auspices of the Coordination Staff.

5. Recommendations

It is recommended that the USIB approve the attached draft memorandum, with its accompanying assessment, to the Special Assistant to the President for National Security Affairs and to the President's Foreign Intelligence Advisory Board.

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DRAFT

MEMORANDUM FOR: The Special Assistant to the President for

National Security Affairs

The President's Foreign Intelligence

Advisory Board

SUBJECT

: Scientific and Technical Intelligence - General (Recommendation No. 15 of the 4 October 1961 Report to the President by the President's Foreign Intelligence Advisory Board)

- In accordance with Mr. Bundy's memorandum of 11 October 1961, subject as above, the United States Intelligence Board (USIB) submits herewith a report containing an assessment of and measures for improving the collection, coordination and analysis of intelligence concerning the scientific and technical capabilities of the Soviet Bloc.
- 2. The United States Intelligence Board has approved the following actions based upon this report:
 - (a) The Central Intelligence Agency (CIA) and the U. S. Air Force should continue their respective machine translation development programs. (See Section 2)
 - (b) CIA should explore the feasibility of allocating additional funds to its present program for exploitation of Soviet Bloc scientific and technical literature. (See Section 2)
 - (c) CIA should expand its to include additional scientific and technical subjects as selected by the (See Section 3) Scientific Intelligence Committee.

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- (d) The Defense Intelligence Agency and the Central
 Intelligence Agency should jointly develop and submit for
 USIB consideration a program for the acquisition and exploitation
 of Soviet Bloc materiel. (See Section 4)
- (e) CIA should develop and carry out a long-range program for the clandestine collection of scientific and technical information from the Soviet Bloc. (See Section 5)

Intormaction from the Soviet Bloc. (See Section))

- (h) The Director, NSA, should submit recommendations to USIB concerning the division of responsibility for telemetry analysis in the intelligence community. (See Section 6)
- (i) Plans for any new technical collection methods intended to meet national and interdepartmental intelligence needs should be submitted to the United States Intelligence Board by the originating agency in order that the Board may express its views as to the intelligence value of the proposed project. (See Section 7)

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- (j) The Defense Intelligence Agency should seek to establish arrangements with the military services permitting expeditious use of technical collection systems in conjunction with operating facilities. (See Section 7)
- (k) CIA should re-examine its program and activities for the production of scientific and technical intelligence in the light of recent changes in the intelligence community, and in consultation with the Defense Intelligence Agency. (See Section 8)
- (1) The Department of Defense should make arrangements for scientific and technical intelligence which will provide, under the staff supervision of the Defense Intelligence Agency, for the continuation and strengthening of programs designed to render support to and receive assistance from research and development components, and for the utilization of the resources and services of such programs in preparing contributions to intelligence estimates. (See Section 8)
- (m) At an appropriate time, the Defense Intelligence Agency should consider the advisability of compiling and maintaining a roster of those scientists and technicians, who are available to the Department of Defense as a whole, to furnish assistance to the intelligence community. (See Section 9)
- (n) The Coordination Staff of the Director of Central
 Intelligence should continue for the USIB a more comprehensive

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examination of intelligence community activities concerning the scientific and technical capabilities of the Soviet Bloc.

JOHN A. McCONE Chairman, United States Intelligence Board

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2. Exploitation of Open Literature

Numerous studies have been undertaken to determine whether Soviet scientific and technical trends and capabilities might be assessed, well in advance, from available open literature, if such literature were exploited. Although these studies have not been conclusive, having the element of "the backward look," it is possible to generalize that a vast amount of scientific and technical information does exist in unexploited literature. The current effort in exploiting foreign literature is largely dependent upon manual translation to English text. Of the estimated 3.5 million pages of Soviet Bloc literature currently available, approximately one-half are believed to contain information of some scientific or technical intelligence value, and only .3 million pages are being translated annually.

The development of a practical machine translation capability has thus far cost the community a very large sum of money, and considerable amounts of additional funds will be required before this capability is fully realized. Several promising projects, particularly those sponsored by the Central Intelligence Agency (CIA) and the United States Air Force (USAF) should be continued on an accelerated basis.

There are approximately qualified translators, with scientific and technical competence, presently available under contractual arrangements with the CIA. Due to a limitation of funds, many of these translators are not now being fully utilized.

CIA should explore the feasibility of allocating additional funds to permit full utilization of this translator resource. The

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| allocation | of an | additional | | for | example, | would | more | than |
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4. Exploitation of Materiel

A limited amount of Soviet Bloc materiel (hardware) has been collected and exploited by the intelligence community to further the assessment of the scientific and technical capabilities of the Soviet Bloc. In some instances, however, there has been duplicative effort in acquiring the same types of equipment. Additionally, for budgetary or personnel reasons, some available equipment has not been fully analyzed and exploited on a timely basis. Consequently, a much greater community-wide effort should be directed toward: (1) acquisition of Soviet Bloc materiel and (2) full and timely intelligence exploitation. This will require community-wide coordination to ensure prompt evaluation by technically qualified personnel and timely dissemination of finished intelligence reports to the community and to the research and development activities responsible for the production of U. S. offensive and defensive weapons systems. The Defense Intelligence Agency (DIA) and CIA should jointly review this matter and submit recommendations for United States Intelligence Board (USIB) consideration.

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8. The Problem of Analysis

National Security Council Intelligence Directive (NSCID) No. 3, para. 7.c., assigns responsibility for the production of scientific and technical intelligence to CIA as a service of common concern. The directive also states (para. 7.b.): "The Department of Defense shall produce military intelligence. This production shall include scientific, technical and economic intelligence directly pertinent to the missions of the various components of the Department of Defense." Although explicit definition of and delineation between these two responsibilities has not been stated and indeed perhaps is not susceptible to such statement, there is, in fact, relatively little unwarranted duplication or overlap of effort between the analysis activities of the military services and CIA. Among the military services themselves there is a natural division of effort, based upon their respective operational and research and development responsibilities within the Department of Defense. There are, however, certain problems in the scientific and technical intelligence field (of which the Soviet anti-ballistic missile program, the development of Soviet inter continental ballistic missiles, the Soviet submarine warfare program, and Soviet space activities are examples) which are of such importance to the national security, and so difficult of resolution, that all agencies are justified in devoting to them such resources and analytical efforts as are available. In these fields diversified approaches will increase the likelihood of reaching a sound understanding of Soviet activities, capabilities and vulnerabilities. Under these circumstances, it is essential that there be a full

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exchange of information among the participating agencies, and that each be kept aware of the analytical efforts of the others in these fields. This is generally being done, both through liaison at the technical working level, and through the facilities of the Scientific Intelligence Committee, the Guided Missile: and Astronautics Intelligence Committee and the Joint Atomic Energy Intelligence Committee.

Nevertheless, there is evidence that, aside from problems of overriding national concern, some duplication of effort exists between CIA and the military services, for which justification is not entirely clear. For example, CIA's Office of Scientific Intelligence includes an "Air and Naval Weapons Branch" engaged in analysis of Soviet air and naval weapons development, despite the more extensive and thorough coverage of these fields by Air Force and Navy.

CIA has made conscientious and largely successful efforts to eliminate unwarranted duplication of its effort with that of components of the Department of Defense; at this time, however, CIA should further re-examine its programs and activities in the light of recent changes in the intelligence community, and in consultation with DIA.

We are aware that duplication of effort may exist in certain technical fields between elements of the intelligence community in Washington on the one hand and intelligence organizations of certain military commands on the other. Time has not permitted an examination of this aspect of the problem, but we note that the Department of Defense is currently examining the allocation of intelligence resources to the various military commands.

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There is general agreement among the elements of the community engaged in the analysis of Soviet Bloc scientific and technical capabilities that there are in general two types of consumers of the product of their analyses: (a) policy and operating officials, and (b) research and development components. It is also recognized that, although the needs of these two consumers are different, they are not incompatible, but are in some respects complementary, in that work devoted to meeting either need assists in meeting the other. There is no doubt that intelligence, by furnishing knowledge and information on foreign scientific and technical capabilities, trends and developments, can significantly assist and expedite our own research and development effort, and that for this assistance to be most effective, the intelligence components concerned must be put into a close and harmonious relationship with research and development activities. Conversely, this relationship can be of great benefit to intelligence, through the availability and use of the scientific talent within the research and development community in solving problems of intelligence analysis and collection.

The United States Intelligence Board believes that arrangements within the Department of Defense for scientific and technical intelligence should provide, under the staff supervision of the Defense Intelligence Agency, for the continuation and strengthening of intelligence programs designed to render support to and receive assistance from research and development components, and for the utilization of the resources and services of such programs in preparing contributions to intelligence estimates.

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10. Security

In the course of this assessment of scientific and technical intelligence activities, the existence of complex security compartmentation of information was frequently cited as an impediment to collection, coordination and analysis efforts throughout the community.

Joint Study Group (JSG) Recommendation No. 14 also drew attention to this general problem and as a result the United States Intelligence Board Security Committee is currently examining the matter and will submit recommendations for consideration.

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